disproving Mr. Hutchinson's statement that on withholding the drug its effects disappear. He inquired whether there were any other *post-mortem* evidences of iodide of potassium poisoning, such as œdema of the glottis, or, as had been described by some French writers, a condition of "dissolutio sanguinis." Dr. Thin's paper was, he believed, the first contribution to the microscopical anatomy of those eruptions, and the view maintained seemed very reasonable, and preferable to the current but superficial doctrine of rash being due to an affection of sebaceous glands.

Dr. THIN, in reply, said he would endeavour to ascertain the facts asked for as to the condition of the urine and the occurrence of other morbid changes attributable to iodide. The important point practically was that if in renal disease iodine is but slowly eliminated, great caution should be observed in the administration of this powerful drug in depressed conditions of the system. The fact that the eruption favoured exposed parts, such as the face and arms, where the circulation was retarded, bore out the view that the iodine acted on the vascular walls, as in these parts it would have a greater opportunity of so acting. The specimen exhibited showed well the limitation of the changes to a small part of a vessel, which was dilated at that spot and blocked with coagulum.

SURGERY.

Experiments on Transfusion.

At the meeting of the Société de Biologie, Dr. BROWN-SÉQUARD gave an interesting account of his experiments on transfusion. He had made use of different sorts of liquid for transfusion, such as normal blood, blood without its fibrine, and milk. In each case he found the results to be the same, but in the case of the milk the quantity that it was necessary to inject was more considerable than in the others. Ninety-five grammes of blood were drawn from a dog, and were replaced by the same amount of milk. Shortly after the operation (about forty-five minutes) there was no trace of milk-globules to be found in the blood, and the dog has continued in excellent health ever since the operation, which took place more than five months ago. M. Malassez found, upon examining the blood after the transfusion, a greater number of white globules than normal. In concluding his remarks, Dr. Brown-Séquard expressed the opinion that it was preferable to choose the arteries rather than the veins, and recommended the operation to be done very slowly, in order to allow the liquid injection to acquire the temperature of the blood. Transfusion also succeeds in animals when the blood made use of comes from a species of animal different from that of the one under experiment. It appears that Dr. Thomas, of New York, has tried the transfusion of milk on the living subject, and is convinced that it acts as well as blood.—*Lancet*, Nov. 2, 1878.

Treatment of Nævus by Sodium Ethylate.

Dr. J. BRUNTON, at a late meeting of the Medical Society of London (*Lancet*, Nov. 2, 1878), read a paper on the Treatment of Nævus by the External Application of Sodium Ethylate, exhibiting cases in illustration. Case 1. F. S——, aged seven, had, about a week after birth, a small red spot slightly raised on the cheek, which, at about the age of four months, had developed into a nævus of the size of a half-crown piece, bluish-red, and raised. It was treated, but with only partial success, by ligature and needles, and when the sodium ethylate was applied, the growth was the size of a crown piece. Case 2. Also a female child, where a nævus was seated over the anterior fontanelle, the size of a shilling. In the first case the original nævus yielded in about a couple of months to the treatment, the continued obliteration of the fresh growth lasting for about a year. Sodium ethylate, which was first obtained and used by Dr. Brunton in 1871, is prepared by adding the metal sodium piece by piece to some absolute alcohol in a wide-mouthed bottle; cautious addition of more sodium until effervescence ceases results in the deposition of a crystalline substance—C_2H_5NaO—at the bottom of the flask. The credit of bringing this substance and other alcoholic and ethylic derivatives before notice was due to Dr. Richardson, who, in a communication on the subject to Dr. Brunton, writes: "When it is brought into contact with water it is decomposed, the sodium becoming oxidized by the oxygen of the water to form sodium hydrate, and the hydrogen of the water going to reconstitute the common or ethylic alcohol. The change of ethylic alcohol into sodium alcohol transforms it from an irritant to a caustic. Laid on dry parts of the body the sodium ethylate is comparatively inert, creating no more change than the redness and tingling caused by common alcohol; but as soon as the part to which the substance is applied gives up a little water, the transformation described above occurs, caustic soda is produced in contact with the skin in proportion as water is eliminated, and there proceeds a gradual destruction of tissues, which may be moderated so as hardly to be perceptible, or may be so intensified as to act almost like a cutting instrument." Speaking of the practical uses of sodium and potassium alcohols, the same writer says that he does not yet see the means of applying them internally, but predicts for them a very extended application for external purposes, they being most potent caustics—*e. g.*, for the destruction and removal of malignant growths beyond the reach of the knife, by application to the surface, or by subcutaneous injection into the growths. Applied direct to the unbroken skin, their destructive action is less painful than would be expected, and when pain is felt it may be checked quickly by dropping upon the part a little chloroform, which decomposes the alcohol, converting it into a chloride salt and ether. Dr. Richardson had also found these alcohols to dissolve some of the vegetable alkaloids—*e. g.*, opium; and thus a way may be opened to one of the greatest needs in medicine—a sure, rapid, and painless caustic. "The caustic alcohols may be used in combination with local anæsthesia from cold. A part rendered quite dead to pain, by freezing with ether spray, could be directly destroyed by the subcutaneous injection of caustic alcohol, a practice very important in the treatment of poisoned wounds, such as the wound from the bite of a snake, or a rabid dog. It is by no means improbable that some cystic tumours may be cured by the simple subcutaneous injection of a little of these fluids, after destruction of sensibility by cold. Potassium and sodium alcohol, added to the volatile hydride of amyl, dissolve in the hydride, and produce a caustic solution. When this solution is applied to the skin the evaporation of the hydride takes place, and a layer of the caustic substance is left behind. This application was of value to the surgeon." The author, continuing, said that, compared with the action of nitric acid, there was but little destruction of the epidermis, and he considered that the sodium ethylate acted as an astringent, and the pain was not so severe as that caused by the nitric acid. In his cases hardly any scarring ensued.

Dr. RICHARDSON expressed his deep satisfaction that one of the remedies he had introduced into practice in 1870 as the outcome of physiological research had proved so useful, and thanked Dr. Brunton for his recognition of the same. He referred to two cases of nævus, one of large size on the scalp, that he had successfully treated in 1870 by the application of sodium ethylate, and then proceeded to refer to the use of the ethylates in cases of scirrhus, and explained the strength of the solution that should be used, its mode of application, and the *rationale* of its action. The ethylates have not yet been administered internally, but they may prove of value, and, moreover, may clear up some difficult points in therapeutics; for example, the action of potassium iodide, a salt which is readily decomposed; and he rather inclined to the belief that the chief agent in the absorbent action of the salt was the liberated potassium, and not the iodine.

Mr. ADAMS said the objection to the knife is the subsequent cicatrization, for small scars may grow and become unsightly. He preferred a subcutaneous operation, and caustics had frequently failed in his hands. He asked Dr. Richardson how the ethylate acted. Was it by absorbing water, or by acting as an astringent?

Dr. RICHARDSON replied that a chemical change takes place; the ethylate takes up water from the tissues, re-forming alcohol; the alcohol then coagulates all the albuminous compounds in its neighbourhood, and the soda liberated acts as a caustic, its action being limited by the coagulation caused by the alcohol. The red blood-corpuscles are also acted on, becoming disintegrated and rendered crystalline, while the white are for a time left unaffected. The risk of too great hemorrhage from the rapid action of the ethylate in cases of pendent vascular tumours, might be met by diluting the ethylate with alcohol, so as to promote coagulation.

Dr. BRUNTON stated that the ethylate has little or no action on the healthy skin, that it limits itself to the spot to which it is applied, and that it can be prepared most simply by adding sodium in small pieces to absolute alcohol.

Encephalocele.

A very rare case has been described by MUHR, in the *Archiv für Psychiatrie*, in which the hernia cerebri presented beneath the nasal bones. During life it formed two tumours the size of walnuts, which lay on each side of the root of the nose, and extended against the nasal bones, at the inner and lower angles of the orbits. They were covered with wrinkled skin, and lessened on pressure, without any sign of cerebral disturbance. Pressure occasioned also a fine crepitation. The patient, who was forty-two years of age, had been epileptic from childhood, and for ten years had presented gradually increasing dementia. He died of phthisis. The frontal portion of each hemisphere was continued into a projection, inclosed in the dura mater, covered with the nasal bone, and separated from one another by the adhesion of the falx to the crista galli. These processes were covered with gray cortical substance, and resembled the olfactory lobes of certain animals. They contained, however, no prolongation of the lateral ventricle, and beneath them lay the optic tracts, apparently normal. On the basal surface of the left projection was a circumscribed area in which the pia mater was opaque and adherent. In the medullary layer of the peduncle of the process were irregular masses of gray substance, and also in the medullary layer of the frontal lobe, in front of the head of the nucleus caudatus. These contained peculiar cells, like those of the cerebral cortex. Otherwise the projection had the same structure as the adjacent part of the frontal lobe, and presented no resemblance to the olfactory lobe of animals. A peculiar degeneration of the large pyramidal nerve-cells was found in the precentral convolution, and in the frontal convolution of two other cases of mental disease the different stages of the changes in the cells were followed. First a pale ring appeared around the nucleus, due to the retraction of the protoplasm. This ring increased in size, while the protoplasm contracted into the processes of the cell, and finally the contour of the cell became less dis-